

Customer No.: 31561
Application No.: 10/065,750
Docket No.: 8711-US-PA

REMARKS

I. Present Status of the Application

Applicants appreciate the Examiner's indication of allowable subject matter in claims 13-21. The Office Action rejected, under 35 U.S.C. § 103(a), claims 1-6 and 9-11 as being unpatentable over Kluth et al. (US 6,376,341) in view of Wolf et al. (Silicon Processing), and claims 8 and 12 as being unpatentable over Kluth et al. in view of Wolf et al. and further in view of Randolph et al. (US 6,538,270). Reconsideration of claims 1-6 and 8-12 is respectfully requested.

II. Response to Rejections under 35 U.S.C. § 103(a)

The Office Action rejected, under 35 U.S.C. § 103(a), claims 1-6 and 9-11 as being unpatentable over Kluth et al. (hereinafter Kluth) in view of Wolf et al. (hereinafter Wolf). Applicants respectfully disagree and traverse the above rejections for at least the reasons below.

To establish prima facie obviousness of a claimed invention, all the claim limitation must be taught or suggested by the prior art. M.P.E.P. § 2143. In determining the differences between the prior art and the claimed invention, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. M.P.E.P. § 2141.

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More specifically, Applicants respectfully submit that claim 1 is allowable over Kluth and Wolf for at least the reason that Kluth and Wolf fail to teach, suggest or disclose the feature of independent claim 1 that the protective layer has a thickness less than 50\AA .

Examiner considers that the thickness being less than 50\AA is obvious for the reasons given in Page 5 of this Office Action: ".....where the general conditions [of thickness] of a claim are disclosed in the prior art, discovering the optimum or workable ranges [of thickness] involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the ranges claimed. ..."

However, Applicants respectfully submit that the prior art does disclose the general condition for the thickness (T_m) of the masking layer in Kluth, but *fails to disclose the general condition for the thickness (T_p) of the protective layer in claim 1*. According to Kluth, the general condition for T_m should be the range of $500\text{-}5000\text{\AA}$ that includes no value less than 50\AA , because the masking layer cannot be reduced to less than 50\AA in thickness without significantly losing its masking effect.

Meanwhile, since the prior art never noticed that corner loss problem of the top oxide can be prevented with a protective layer, *there should be no general condition for T_p disclosed in the prior art*. Accordingly, it is no routine skill to discovering an optimal or workable range of T_p (e.g., $T_p < 50\text{\AA}$) from the prior art that has disclosed no general condition for T_p . It is even impossible to discover a thickness less than 50\AA from the general condition of $500\text{-}5000\text{\AA}$ for T_m , because a thickness difference of at least one order of magnitude ($500/50=10$) is a very large

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difference in IC electronics. Therefore, at least the above feature of claim 1 is non-obvious over the prior art.

For at least the foregoing reasons, Applicants respectfully submit that independent claim 1 and claims 2-6& 9-11 dependent from claim 1 patently define over the prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

In addition, the Office Action rejected, under 35 U.S.C. § 103(a), claims 8 and 12 as being unpatentable over Kluth in view of Wolf and further in view of Randolph et al. (hereinafter Randolph).

As mentioned above, Kluth and Wolf both fail to teach, suggest or disclose the feature of independent claim 1 that the protective layer has a thickness smaller than 50Å. Randolph also fails to teach, suggest or disclose the above feature of claim 1. Since claims 8 and 12 are dependent from claim 1, they inherit the above feature of claim 1.

For at least the same reasons as discussed above, Applicants respectfully submit that claims 8 and 12 dependent from claim 1 also patently define over the prior art. Reconsideration and withdrawal of the corresponding rejections are also respectfully requested.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-6 and 8-12 are also in proper condition for allowance as claims 13-21 are. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

Date: *April 12, 2005*

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